Layer Architecture for Autonomous Vehicles

Draft: Feb 7, 2003 Robert E. La Quey

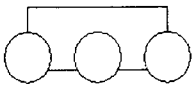
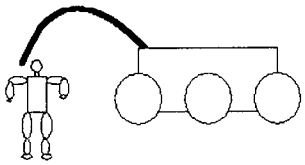
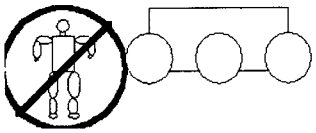
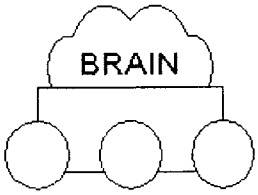
The goal of the layer model is to provide a systems architecture analogous to the layered communications model that will allow separate development at each level.

For background on the seven layer communications model see OSI Seven Layer Model

But be aware of warnings of committe design. While we believe in layers our approach is much more that of the IETF then the ISO.

The Layer Model is being defined by the Unmanned Vehicle Engineering Task Force UVETF
The latest copy of this document may be found here: UV Layer Architecture

Build it and they will come.

Layer 0 Physical Vehicle		All basic mechanical systems that provide for locomotion and direction of the vehicle
Layer 1 Simple Robotic Vehicle		Enables electronic control of systems that provide for locomotion and direction of the vehicle thru an umbilical
Layer 2 Telerobotic Vehicle		Enables electronic control of systems that provide for locomotion and direction of the vehicle via wireless, e.g. RF transmission.
Layer 3 Autonomous Vehicle		Systems operate to provide stand alone autonomous locomotion and simple navigation
Layer 4 Intelligent Autonomous Vehicle		Systems operate to provide stand alone autonomous locomotion and capable of planning and significant navigation in the face of obstacles

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